Amendments to the Claims

Please amend Claims 1, 3, 4, 6 and 8-17, and add new Claims 18-31 to read as follows.

1. (Withdrawn) A tube pump for generating negative pressure in a tube, ~~including~~ comprising:

a tube disposed along an ~~actuate~~ arcuate guide portion;

a pressing roller for squeezing said tube;

a rotary member to which said pressing roller is rotatably journalled; and

a supporting member to which said rotary member is rotatably ~~journalled;~~ journalled,

wherein said tube, said pressing roller, said rotary member and said supporting member are assembled to thereby form a pump unit, and are separable from ~~said~~ the guide portion in the ~~state~~ form of said pump unit.

2. (Withdrawn) A tube pump according to Claim 1, wherein said supporting member is removably mounted on a guide member forming said guide portion, and at least one of said guide member and said supporting member is formed of a material having slidability.

3. (Withdrawn) A tube pump according to Claim 1, wherein said pump unit ~~has~~ comprises a pump gear for transmitting a rotational force to said rotary member.

4. (Withdrawn) A tube pump according to Claim 1, wherein said pump unit ~~has~~ comprises a fixing member for fixing said tube.

5. (Withdrawn) A tube pump according to Claim 4, wherein said fixing member is formed integrally with said supporting member.

6. (Withdrawn) A tube pump according to Claim 1, wherein said pump unit ~~has~~ comprises a joint portion for connecting said tube to an external route.

7. (Withdrawn) A tube pump according to Claim 6, wherein said joint portion is formed integrally with said supporting member.

8. (Withdrawn) A tube pump according to Claim 1, wherein said pressing roller is held to permit movement in the radial direction thereof relative to said rotary member, said pressing roller is ~~radically~~ radially outwardly moved by the rotation of said rotary member in one direction to thereby assume a tube pressing state, and said pressing roller is radially inwardly moved by the rotation of said rotary member in the other direction to thereby release ~~said~~ the tube pressing state.

9. (Withdrawn) A tube pump according to Claim 8, further comprising a biasing member, wherein on a movement route of said pressing roller, ~~there is a~~ said biasing member ~~for biasing~~ biases, upon contact with said pressing roller, said pressing roller in a direction opposite to a movement direction by said rotary member, and said biasing member is retractable during the passage of said pressing roller.

10. (Withdrawn) A tube pump according to Claim 1, wherein the relative distances between said pressing roller and ~~said~~ the guide portion are made common and a tube differing in inner diameter is mounted to thereby ~~make~~ form a tube pump differing in output ~~characteristic makable~~ characteristics.

11. (Withdrawn) A tube pump according to Claim 10, wherein ~~said~~ the guide member of said tube pump differing in output ~~characteristic~~ characteristics is formed ~~by~~ of a common part.

12. (Withdrawn) A tube pump according to Claim 10, ~~having~~ further comprising a biasing member for biasing said pressing roller toward said tube, and wherein the biasing force of said biasing member in ~~said~~ the tube pump differing in output ~~characteristic~~ characteristics is made the same.

13. (Withdrawn) A tube pump according to Claim 10, wherein in ~~said~~ the tube pump differing in output ~~characteristic~~ characteristics, all of said rotary member and parts incorporated in said rotary member are made common.

14. (Withdrawn) A tube pump according to Claim 13, wherein ~~said~~ the tube pump differing in output ~~characteristic~~ characteristics differs only in the inner diameter of said tube and is common in the other parts.

15. (Withdrawn) A tube pump according to Claim 10, wherein ~~said~~ the tube differing in inner diameter has the same thickness.

16. (Currently amended) A discharge recovering apparatus for recovering and maintaining the ink discharging performance of recording means for discharging ink, ~~including~~ comprising:

a cap for covering the recording means;

a tube connected to said cap, said tube being disposed along an arcuate guide portion;

a pressing roller for squeezing said tube;

a rotary member to which said pressing roller is rotatably journalled; and

a supporting member to which said rotary member is rotatably ~~journalled;~~ journalled,

wherein said tube, said pressing roller, said rotary member and said supporting member are assembled to thereby form a pump unit, and are separable from ~~said~~ the guide portion in the ~~state~~ form of said pump unit.

17. (Currently amended) An ink jet recording apparatus for discharging ink from recording means to a recording material to thereby effect recording, ~~including~~ comprising:

a cap for covering the recording means;

a tube connected to said cap, said tube being disposed along an arcuate guide portion;

a pressing roller for squeezing said tube,

a rotary member to which said pressing roller is rotatably journalled; and

a supporting member to which said rotary member is rotatably ~~journalled;~~ journalled,

wherein said tube, said pressing roller, said rotary member and said supporting member are assembled to thereby form a pump unit, and are separable from ~~said~~ the guide portion in the ~~state~~ form of said pump unit.

18. (New) An ink jet recording apparatus according to Claim 17, wherein said supporting member is removably mounted on a guide member forming said guide portion, and at least one of said guide member and said supporting member is formed of a material having slidability.

19. (New) An ink jet recording apparatus according to Claim 17, wherein said pump unit comprises a pump gear for transmitting a rotational force to said rotary member.

20. (New) An ink jet recording apparatus according to Claim 17, wherein said pump unit comprises a fixing member for fixing said tube.

21. (New) An ink jet recording apparatus according to Claim 20, wherein said fixing member is formed integrally with said supporting member.

22. (New) An ink jet recording apparatus according to Claim 17, wherein said pump unit comprises a joint portion for connecting said tube to an external route.

23. (New) An ink jet recording apparatus according to Claim 22, wherein said joint portion is formed integrally with said supporting member.

24. (New) An ink jet recording apparatus according to Claim 17, wherein said pressing roller is held to permit movement in the radial direction thereof relative to said rotary member, said pressing roller is radially outwardly moved by the rotation of said rotary member in one direction to thereby assume a tube pressing state, and

said pressing roller is radially inwardly moved by the rotation of said rotary member in the other direction to thereby release the tube pressing state.

25. (New) An ink jet recording apparatus according to Claim 24, further comprising a biasing member, wherein on a movement route of said pressing roller, said biasing member biases, upon contact with said pressing roller, said pressing roller in a direction opposite to a movement direction by said rotary member, and said biasing member is retractable during the passage of said pressing roller.

26. (New) An ink jet recording apparatus according to Claim 17, wherein the relative distances between said pressing roller and the guide portion are made common and a tube differing in inner diameter is mounted to thereby form a tube pump differing in output characteristics.

27. (New) An ink jet recording apparatus according to Claim 26, wherein the guide member of said tube pump differing in output characteristics is formed of a common part.

28. (New) An ink jet recording apparatus according to Claim 26, further comprising a biasing member for biasing said pressing roller toward said tube, and wherein the biasing force of said biasing member in the tube pump differing in output characteristics is made the same.

29. (New) An ink jet recording apparatus according to Claim 26, wherein in the tube pump differing in output characteristics, all of said rotary member and parts incorporated in said rotary member are made common.

30. (New) An ink jet recording apparatus according to Claim 29, wherein the tube pump differing in output characteristics differs only in the inner diameter of said tube and is common in the other parts.

31. (New) An ink jet recording apparatus according to Claim 26, wherein the tube differing in inner diameter has the same thickness.